REMARKS

In response to the Office Action mailed April 22, 2004, Applicant has amended the application as above. No new matter is added by the amendments as discussed below. Applicant respectfully requests the entry of the amendments and reconsideration of the application in view of the amendments and the remarks set forth below.

Discussion of Claim Amendments

Claims 1 and 26 have been amended. Upon the entry of the amendments, Claims 1-27 are pending in this application. The amendments to Claim 1 are supported by, for example, the specification at page 9, lines 8-18. The amendment to Claim 26 is merely for clarification or to conform the claim to U.S. practice, and thus does not narrow the scope of protection. Furthermore, no new matter is added by the amendments. Applicant respectfully requests the entry of the amendments.

Rejection of Claims under 35 U.S.C. § 102(e)

The Examiner has rejected Claims 1-4, 6-14 and 16-27 under 35 U.S.C. § 102(e) as being anticipated by Takeshita (U.S. Patent No. 6,556,524). Applicant respectfully traverses the Examiner's claim rejections as discussed below. Applicant reserves the right to challenge whether Takeshita is available as prior art under § 102(e) against the present application.

Standard of Anticipation

"For a prior art reference to anticipate a claim under 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 850 F.ed 675, 677, 7 USPQ 2d 1315, 1317 (Fed. Cir. 1988).

Discussion of the Takeshita Reference

Takeshita is directed to providing an optimum recording speed by i) determining presence/absence of buffer underrun, by a buffer underrun detection circuit (42), ii) if a buffer underrun is detected, reducing the recording speed by one level or one step from the maximum

recording speed, and iii) repeating i) and ii) until the lowest recording speed is reached or an absence of buffer underrun is detected. *See column 6, line 57 through column 7, line 17 and Figure 2.* That is, Takeshita obtains an optimum recording speed based on detecting the presence/absence of buffer underrun.

Discussion of Patentability of Independent Claim 1

Claim 1 recites, among other things, that the controller determines a preferred recording speed *based on the communication link transfer speed.* Applicant respectfully submits that Takeshita does not disclose the above-indicated claim term as discussed below.

As discussed above, in Takeshita, if a buffer underrun is detected, the recording speed is reduced by one level from the maximum recording speed until the lowest recording speed is reached or an absence of buffer underrun is detected. Takeshita specifically states that:

> A buffer underrun detection circuit 42 of FIG. 1 constantly detects a quantity of data being currently stored in the buffer memory 26 so as to determine presence/absence of "buffer underrun", at step S13. *see column 6, lines 57-61 of Takeshita*

That is, in order to obtain an optimum recording speed, the Takeshita system is required to continuously check the buffer memory (26) and determine whether buffer underrun is present or absent. Thus, Applicant respectfully submits that Takeshita does not, and need not, determine an optimum recording speed based on the communication link transfer speed. In contrast, in the claimed invention, the controller determines a preferred recording speed *based on the communication link transfer speed.* In view of the above, the claim term "the controller determines a preferred recording speed based on the communication link transfer speed" recited in Claim 1 is not disclosed in the Takeshita reference. Therefore, Claim 1 is allowable over Takeshita.

Discussion of Patentability of Independent Claims 14 and 20

Claim 14 recites, among other things, i) detecting a communication link transfer speed slower than the optical drive maximum recording speed and ii) changing a linear velocity of the optical disc in response to the communication link transfer speed. Claim 20 includes a similar

claim term. Applicant respectfully submits that Takeshita does not disclose the above-indicated claim terms as discussed below.

1. Takeshita Does Not Disclose Detecting a Communication Link Transfer Speed Slower Than the Optical Drive Maximum Recording Speed

As discussed above, the Takeshita system detects presence/absence of buffer underrun by a buffer underrun detection circuit (42). In Takeshita, if a presence of a buffer underrun is detected, the Takeshita system reduces the recording speed (e.g., V_r) by one level (e.g., 1) from the maximum recording speed (e.g., V_{rmax}). Thereafter, it is determined whether the current recording speed (V_r-1) has reached the lowest recording speed (e.g., V_{rmin}) or an absence of buffer underrun is detected. If neither of the situations occurs, the Takeshita system reduces again the previous recording speed by one level (now, V_r-2) from the previous set recording speed (V_r-1). The processing of reducing the current recording speed and checking a presence of buffer underrun is repeated until the current recording speed reaches the lowest speed (V_{rmin}) or buffer underrun is detected. *See "Steps S15 and 16" of Figure 2 and column 7, lines 1-3 and 12-17.* Thus, Applicant respectfully submits that the Takeshita system does not, and need not, detect a communication link transfer speed slower than the optical drive maximum recording speed.

In contrast, the claimed invention detects *a communication link transfer speed slower than* the optical drive maximum recording speed. In view of the above, the above-indicated claim term is not disclosed in Takeshita.

2. Takeshita Does Not Disclose Changing a Linear Velocity of the Optical Disc in Response to the Communication Link Transfer Speed

As discussed above, the Takeshita system continuously reduces the recording speed by one level or one step from the maximum recording speed until the lowest recording speed is reached or an absence of buffer underrun is detected. That is, the recording speed is changed in response to the presence/absence of buffer underrun. Thus, Applicant respectfully submits that Takeshita does not, and need not, change an optimum recording speed or a linear disc velocity *in response to the communication link transfer speed.* In view of the above, the claim term "changing a linear velocity of the optical disc in response to the communication link transfer

speed" in Claim 14 (and similar language in Claim 20) is not disclosed in the Takeshita reference.

3. Summary

In summary, the terms "detecting a communication link transfer speed slower than the optical drive maximum recording speed" and "changing a linear velocity of the optical disc in response to the communication link transfer speed" are not disclosed in the Takeshita reference. According to the Takeshita system, the status of buffer underrun can actually occur since the recording speed is adjusted once the presence of buffer underrun is detected. However, in the claimed invention, since the system selects the slower one of the data transfer speed and the maximum recording speed, buffer underrun can be avoided. In view of the above, Claims 14 and 20 are allowable over Takeshita.

Discussion of Patentability of Independent Claims 24 and 26

Claim 24 recites, among other things, i) means for comparing the communication link speed to an optical drive maximum recording speed and ii) means for writing the communication link speed in memory if the communication link speed is less than the optical drive recording speed. Claim 26 includes similar claim features. Applicant respectfully submits that Takeshita does not disclose the above-indicated claim terms as discussed below.

Takeshita may compare the currently set recording speed with the lowest recording speed so as to determine whether the current recording speed has reached the lowest recording speed. However, Applicant respectfully submits that the Takeshita system does not, and need not, compare the communication link speed to an optical drive maximum recording speed since an optimum recording speed is obtained based on presence/absence of buffer underrun.

Furthermore, Applicant respectfully submits that the Takeshita system does not, and need not, write the communication link speed in memory if the communication link speed is less than the optical drive recording speed since Takeshita is required to continuously reduce the current recording speed and check a presence of buffer underrun until the current recording speed reaches the lowest recording speed or buffer underrun is detected.

In summary, the terms "comparing the communication link speed to an optical drive maximum recording speed" and "writing the communication link speed in memory if the

communication link speed is less than the optical drive recording speed" are not disclosed in the Takeshita reference. Again, one embodiment of the claimed invention has an advantage over Takeshita in that, in Takeshita the status of buffer underrun can actually occur, whereas in the claimed invention buffer underrun can be avoided. In view of the above, Claims 24 and 26 are allowable over Takeshita.

Patentability of Dependent Claims

Claims 2-13, 15-19, 21-23, 25 and 27 depend from base Claims 1, 14, 20, 24 and 26 further define additional technical features of the present invention. In view of the patentability of their base claims, and in further view of their additional technical features, all of the above-indicated dependent claims are patentable over the prior art of record.

Rejection of Claims under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 5 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Takeshita in view of Asthana (U.S. Patent No. 5,396,476). Since at least their base independent claims are patentable and Asthana does not remedy the deficiency of Takeshita, Claims 5 and 15 are allowable over the prior art references.

CONCLUSION

In view of Applicant's amendments to the application and the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Respectfully submitted,

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Dated: 7/21/04

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